

A NEW GERYONID CRAB FROM WALTERS  
SHOALS, SOUTHWESTERN INDIAN OCEAN  
(CRUSTACEA: DECAPODA: BRACHYURA)

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*Abstract.*—*Chaceon collettei*, the fifth species of the genus to be recognized from the southwestern Indian Ocean, is described from material collected in 1090–1100 meters at Walters Shoals. It most closely resembles *C. paulensis* (Chun) from Amsterdam and St. Paul islands, central Indian Ocean, and differs from other species reported from the area in having well developed anterolateral spines on the carapace in adults.

Among the specimens collected during Cruise 17 of the Russian vessel *Vityaz* in the southwestern Indian Ocean in 1988 were specimens of a large geryonid crab that resembled *Chaceon paulensis* (Chun, 1903) in having well developed frontal and anterolateral spines on the carapace in adults. Comparison of these specimens with material of *C. paulensis* showed that they were distinct. The material from Walters Shoals is named here.

The holotype and two paratypes have been deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM) and a paratype is in the collections of the Muséum National d'Histoire Naturelle, Paris (MNHNP). Abbreviations used below include: cb, carapace width including anterolateral spines; cl, carapace length on midline; leg, collector; m, meters; mm, millimeters; P5, fifth pereopod (fourth walking leg); sta, station.

*Chaceon collettei*, new species  
Figs. 1a–h, 2

*Material.*—Indian Ocean: Walters Shoals, 33°01.6'–33°04'S, 44°49.2'–44°49.1'E, 1090–1100 m, *Vityaz* Cruise 17, sta 2670, leg B. Collette, 19 m shrimp trawl, 8 Dec 1988: 2 ♂, 2 ♀. Larger ♂, cl 112 mm, cb 143 mm, is holotype (USNM 252412), smaller ♂ and 1

♀ are paratypes (USNM 252411), 1 ♀ is paratype (MNHNP B.24528).

*Diagnosis.*—A large *Chaceon*, cl to 112 mm, cb to 143 mm, with 5 sharp anterolateral teeth on the carapace in adults and with laterally compressed dactyli on the walking legs. Carapace 1.3 times broader than long, moderately inflated at protogastric regions, convex from front to back. Frontal teeth sharp and elongate, medians extending further forward than laterals; distance between submedian frontal teeth less than distance from submedian to lateral frontal teeth. Distance from first to second anterolateral teeth less than distance from third to fourth, distance from first to third anterolateral teeth subequal to distance from third to fifth (slightly less to slightly greater). Carapace smooth, with few, shallow scattered pits dorsally, branchial regions slightly more pitted and eroded than remainder of surface, hepatic regions smooth. Orbit shallow, depth half width. Suborbital tooth long and sharp, extending to or beyond apices of outer frontal teeth; suborbital margin smooth. Outer angle of merus of third maxilliped projecting laterally. Cheliped merus with sharp spine subdistally and sharp spine to blunt lobe distally; carpus with spiniform granules dorsally and distal outer spine, anterior margin smooth; propodus with distal spine dorsally, rounded off in large male.

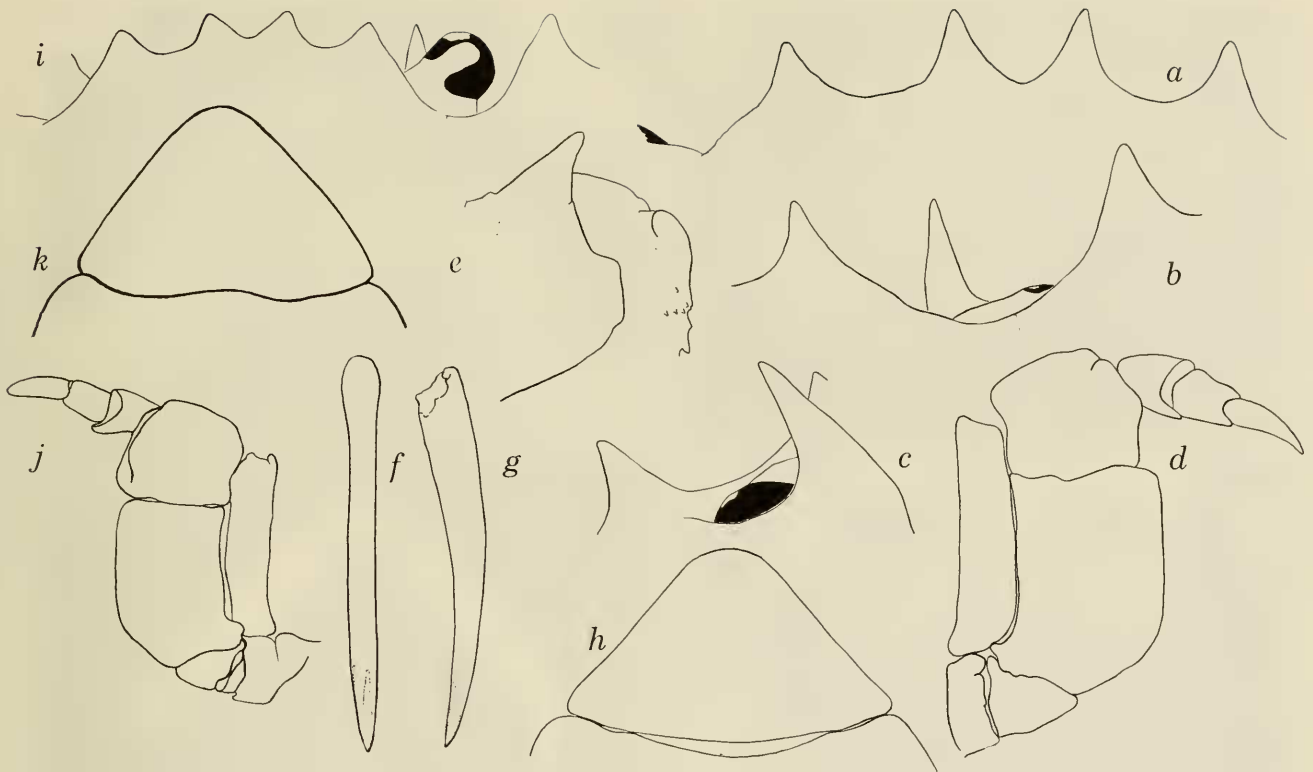


Fig. 1. a-h, *Chaceon collettei*, n. sp., male holotype, cl 112 mm, Walters Shoals. a, Front; b, Orbit; c, Ventral view of orbit; d, Third maxilliped; e, Distal end of merus of fifth pereopod; f, Dactylus of fifth pereopod, dorsal view; g, Dactylus of fifth pereopod, posterior view; h, Telson of male. i-k, *Chaceon paulensis* (Chun), male, cl 82 mm, St. Paul island. i, Frontal region; j, Third maxilliped; k, Telson of male.

Meri of posterior three walking legs each with strong distal spine dorsally. Dactylus of walking legs laterally compressed, height at midlength greater than width, tips of dactyli sharp. P5: merus 3.4 times longer than high in female, 4.9–5.2 times longer than high in males, length 0.6 times cb in both sexes; carpus with line of erect spinules dorsally; propodus 4.4 times longer than high in males (broken in females); dactylus relatively short, 0.83–0.84 times as long as propodus. Telson length 0.6 times width.

*Size.*—Males, cl 100 and 112 mm, cb 128 and 143 mm; females, cl 87 and 88 mm, cb 113 and 117 mm.

*Color.*—Color in life was not recorded, but preserved specimens are pink, suggesting that this species, like *C. paulensis*, is red in life.

*Remarks.*—*Chaceon collettei* is the fifth species of the genus to be recognized from the southwestern Indian Ocean. It resembles *C. paulensis* (Chun, 1903) from Am-

sterdam and St. Paul's islands and differs from *C. chuni* (Macpherson, 1983) from Namibia and South Africa, *C. crosnieri* Manning & Holthuis, 1989 from Madagascar, and *C. macphersoni* (Manning & Holthuis, 1988) from Madagascar and southwestern Africa in having well developed frontal and anterolateral spines on the carapace in adults and in having a sharp distal spine dorsally on the merus of the walking legs. This new species differs from *C. paulensis* (Fig. 1i–k) in several characters: the frontal teeth are sharper and slenderer, the orbit is shallower, the outer angle of the merus of the third maxilliped projects further laterally, the fourth anterolateral tooth of the carapace is smaller, and the telson of the male is wider.

Although geryonid crabs have relatively restricted ranges (Manning & Holthuis 1989: 74), a comparison of *C. collettei* with species from outside the Indian Ocean is still useful. One other species from the Indo-West Pa-



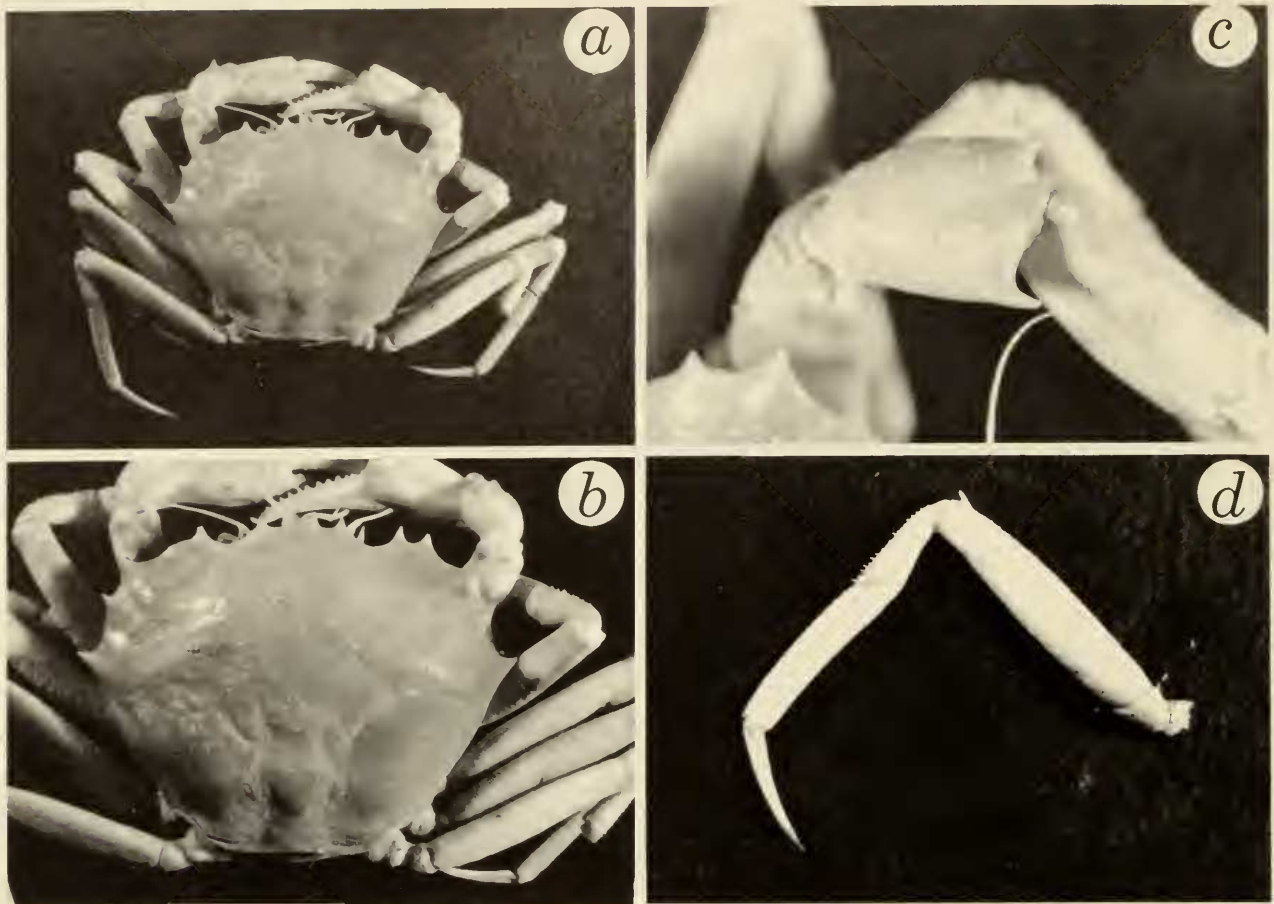


Fig. 2. *Chaceon collettei*, n. sp., male paratype, cl 100 mm. a, Dorsal view; b, Carapace, enlarged; c, Carpus of cheliped; d, Fifth pereopod.

cific, *C. yaldwyni* Manning, Dawson & Webber, 1990 has a distal dorsal spine on the merus of the walking legs; it differs from *C. collettei* in having much smaller and blunter anterolateral teeth on the carapace in adults.

Of the four species from the Atlantic with relatively sharp anterolateral teeth on the carapace and laterally compressed dactyli on the walking legs, three, *C. atopus* Manning & Holthuis, 1989 from St. Helena, *C. inghami* (Manning & Holthuis, 1986) from Bermuda, and *C. inglei* Manning & Holthuis, 1989 from the northeastern Atlantic, differ from *C. collettei* in having much slenderer walking legs, with the merus more than six times longer than high. In the fourth species, *C. gordonae* (Ingle, 1985) from the Cape Verde Islands, the spines of the carapace are much smaller in adults.

Little is known about the decapods of Walters Shoals, an area about 400 miles

south of Madagascar and 600 miles from the African coast (Kensley 1969). Kensley (1969, 1981) listed five species of decapods from there, including one endemic species, *Alpheus waltervadi* Kensley, 1969, all from shallow water, in 38–46 meters.

*Name.*—This species is dedicated to Bruce B. Collette, Systematics Laboratory, National Marine Fisheries Service, who participated in the *Vityaz* cruise during which this species was collected and who enriched the national collections with material from that cruise.

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